What is claimed is:

1. A composition for topical application to the skin comprising a mixture of effective amounts of cholesterol sulfate or salts thereof, and an exfoliant.

2. The composition of claim 1 wherein the cholesterol sulfate or salts thereof is present in an amount between about 0.05 to about 5.00 percent, and the exfoliant is present in an amount between 0.1 to about 10.0 percent.

3. The composition of claim 1 wherein the composition contains a salt of cholesterol sulfate.

4. The composition of claim 3 wherein the salt is potassium.

5. The composition of claim 1 wherein the exfoliant is an amino sugar selected from the group consisting of N-acetyl-D-glucosamine, N-acetylgalactosamine, and a combination thereof.

6. The composition of claim 1 further comprising at least one fatty acid selected from the group consisting of butyric acid, caproic acid, octanoic acid, decanoic acid, dodecanoic acid, tetradecanoic acid, palmitic acid, stearic acid, linoleic acid and oleic acid.

7. The composition of claim 6 wherein said fatty acid is linoleic acid.

8. The composition of claim 1 further comprising cholesterol.

9. The composition of claim 1 further comprising both linoleic acid and cholesterol.

10. The composition of claim 1 further comprising sclareolide.

11. The composition of claim 1 further comprising a protease inhibitor selected from the group consisting of white birch extract, silver birch extract, *Boswellia* extract, bearberry extract, *Centella asiatica* extract, and *Pygeum africanum* extract.

12. The composition of claim 1 further comprising both sclareolide and white birch.

13. A cosmetic or pharmaceutical formulation for topical application of a composition to the skin, the formulation containing a mixture comprising cholesterol sulfate or salts thereof in an amount from about 0.05 to about 5.00 percent, and from about 0.1 to about 10.0 percent by weight of an amino sugar selected from the group consisting of N-acetyl-D-glucosamine, N-acetylgalactosamine, and a combination thereof by weight of the composition.

14. The formulation of claim 13 further comprising both cholesterol and a fatty acid selected from the group consisting of butyric acid, caproic acid, octanoic acid, decanoic acid, dodecanoic acid, tetradecanoic acid, palmitic acid, stearic acid, linoleic acid and oleic acid.

15. The formulation of claim 14 wherein the fatty acid is linoleic acid present in an amount less than 1 percent and the cholesterol is present in an amount less than 1 percent.

16. A method for improving or maintaining a healthy skin barrier which comprises applying to the skin an effective amount of a mixture comprising cholesterol sulfate or salts thereof in an amount from about 0.05 to about 5.00 percent by weight of the composition, and from about 0.1 to 10.0 percent by weight of an amino sugar selected from the group consisting of N-acetyl-D-glucosamine, N-acetylgalactosamine, and a combination thereof.

17. The method of claim 16 in which the mixture comprises from about 0.1 to about 2.0 percent cholesterol sulfate.

18. The method of claim 1 in which the composition comprises about 0.04 to about 1.00 percent cholesterol sulfate.

19. A method of treating or preventing damage to the skin, wherein the damage is associated with a reduction or loss of skin barrier function, which comprises applying to the skin an effective amount of a mixture comprising cholesterol sulfate or salts thereof in an amount from about 0.05 to about 5.00 percent, and about 0.1 to about 10.0 percent of an amino sugar selected from the group consisting of N-acetyl-D-glucosamine, N-acetylgalactosamine, and a combination thereof by weight of the composition.

20. The method of claim 19 further comprising cholesterol sulfate or salts thereof in an amount of about 0.1 to 2.0 percent, about 0.5 to 8.0 percent of N-acetyl-D-glucosamine, cholesterol in an amount of about 0.2 to 1.0 percent, linoleic acid in an amount of about 0.2 to 1.0 percent by weight of the of the composition, sclareolide in an amount of about 0.001 to about 1.000 percent, and white birch in an amount of about 0.001 to about 1.000 percent.